

VIA HAND DELIVERY AND ELECTRONIC MAIL

May 24, 2021

Luly E. Massaro, Commission Clerk
Rhode Island Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

Re: PUC Docket No. 5151 – Revolution Wind Advisory Opinion to the
RI Energy Facility Siting Board

Dear Ms. Massaro:

Revolution Wind, LLC, a 50/50 joint venture between Orsted North America and Eversource, is pleased to file the following with the Public Utilities Commission (PUC):

1. An original and six copies of the Pre-Filed Direct Testimony of Kenneth Bowes and Kellen Ingalls;
2. An original and 5 copies of the confidential version of the Pre-filed Direct Testimony of Kenneth Bowes and Kellen Ingalls; and,
3. A Motion for Protective Treatment of Confidential Information requesting that certain cost information be excluded from the public record and maintained as confidential.

Thank you for your attention to this matter. Please do not hesitate to contact me if you have any questions.

Respectfully,



Robin L. Main

Adam Ramos

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Enclosure

cc: Christine Dieter, Hinckley, Allen, and Snyder
Marvin Bellis, Eversource
Charles R. Scott, Orsted

CERTIFICATE OF SERVICE

I hereby certify that on May 24, 2021, I delivered a true copy of the foregoing document to the service list by electronic mail.



Adam M. Ramos

Docket No. 5151 – Needs Advisory Opinion to EFSB regarding Revolution Wind, LLC Service List update 5/12/2021

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STATE OF RHODE ISLAND
PUBLIC UTILITIES COMMISSION

IN RE: ISSUEANCE OF ADVISORY)	Docket No. 5151
OPINION REGARDING REVOLUTION)	
WIND, LLC’S LICENSE TO CONSTRUCT)	
)	
)	

**MOTION OF REVOLUTION WIND, LLC FOR PROTECTIVE TREATMENT OF
CONFIDENTIAL INFORMATION**

Revolution Wind, LLC (“Revolution Wind”) hereby requests that the Rhode Island Public Utilities Commission (the “Commission”) grant protection from public disclosure to certain confidential information submitted as an attachment to the Pre-Filed Direct Testimony of Kenneth Bowes and Kellen Ingalls (the “Pre-Filed Testimony”), as permitted by Rule 1.3(H)(3) of the PUC Rules of Practice and Procedure, 810-RICR-00-00-1-1.3(H)(3)(“Rule 1.3(H)), and R.I. Gen. Laws §38-2-2(4)(B). Specifically, Revolution Wind seeks an order from the Board to protect certain confidential cost information included as Exhibit A to the Pre-Filed Testimony, and also that, pending entry of that ruling, the Commission preliminarily grant Revolution Wind’s request for confidential treatment pursuant to Rule 1.3(H)(2).

I. LEGAL STANDARD

Rule 1.3(H) provides that access to public records shall be granted in accordance with the Access to Public Records Act (“APRA”), R.I. Gen. Laws § 38-2-1 *et seq.*. The APRA establishes the proper balance between “public access to public records” and protection “from disclosure [of] information about particular individuals maintained in the files of public bodies when disclosure would constitute an unwarranted invasion of personal privacy.” Gen. Laws § 38-2-1.

Per APRA, “all records maintained or kept on file by any public body” are “public records” to which the public has a right of inspection unless a statutory exception applies. *Id.* § 38-2-3.

The definition of “public record” under APRA specifically excludes “trade secrets and commercial or financial information obtained from a person, firm, or corporation that is of a privileged or confidential nature.” *Id.* § 38-2-2(4)(B). The statute provides that such records “shall not be deemed public.” *Id.* Further, APRA also excludes “[s]cientific and technological secrets . . . the disclosure of which would endanger the public welfare and safety” from the definition of “public records.” *Id.* § 38-2-2(4)(F).

The Rhode Island Supreme Court has held that when documents fall within a specific APRA exemption, they “are not considered to be public records,” and “the act does not apply to them.” *Providence Journal Co. v. Kane*, 577 A.2d 661, 663 (R.I. 1990). Further, the court has held that “financial or commercial information” under APRA includes information “whose disclosure would be likely . . . to cause substantial harm to the competitive position of the person from whom the information was obtained.” *Providence Journal Co. v. Convention Ctr. Auth.*, 774 A.2d 40, 47 (R.I. 2001).

II. BASIS FOR CONFIDENTIALITY

Exhibit A includes project cost information relating to the construction, operation, and maintenance of the proposed wind energy generation facilities. Revolution Wind seeks confidential treatment of this information due to the competitive nature of offshore wind solicitations and the competitive bidding processes involved. Exhibit A constitutes “commercial or financial information” to which the APRA public disclosure requirements do not apply. *See* Gen. Laws § 38-2-2(4)(B); *Kane*, 577 A.2d at 663.

The Revolution Wind project (the “Project”) was awarded to Revolution Wind’s

predecessor after a competitive solicitation coordinated through, and approved by, the Rhode Island and Connecticut regulators, with the local electric distribution companies purchasing the Project's energy output. The Project costs included within those solicitations were kept under strict confidence during the bid process. Disclosure of that information during this proceeding would provide direct competitors of Revolution Wind¹ with proprietary information that could undermine the ability of the Orsted/Eversource JV to compete effectively in future solicitations.

Further, Revolution Wind received some of the competitive quotes used to generate estimates for Project components under obligations to maintain strict confidentiality. Disclosing the estimate details would provide potential competitors with specific information regarding how Revolution Wind developed the Project estimate. This information likely would inform the bases for future competitive proposals.

While disclosure of project cost information may in some instances further important interests in transparency and public accountability, these considerations do not apply in this case. As a result of the competitive bidding process and regulatory approval of the power purchasing agreements, the purchasing price of the Project's output is fixed. Revolution Wind has assumed all risks with respect to Project costs, and the impacts to ratepayers have been vetted, established, and disclosed publicly. The estimated Project costs, or any subsequent potential change to those costs upon Project completion, will not affect the purchase price.

Because the information contained in Exhibit A is highly sensitive and could harm Revolution Wind's competitive position if disclosed, Revolution Wind respectfully asks the Commission to maintain its confidentiality.

Moreover, Revolution Wind treats the data and information in Exhibit A as confidential

¹ The Orsted/Eversource JV includes other offshore wind projects in addition to the Revolution Wind Project. Disclosure of the confidential cost information included in the Project application risks harming those projects as well.

and commercially sensitive. Revolution Wind does not generally make it available to the public, other companies, or regulatory bodies in the absence of a protective order or confidentiality agreement. Disclosing publicly the information in Exhibit A as part of the Commission's review process would "cause substantial harm" to Revolution Wind's "competitive position." See *Convention Ctr. Auth.*, 774 A.2d at 47.

Revolution Wind therefore respectfully requests that the Commission grant protective treatment to Exhibit A and take the following actions to preserve its confidentiality: (1) maintain Exhibit A as confidential indefinitely; (2) not place Exhibit A on the public docket; and (3) disclose Exhibit A only to the Commission, its attorneys, and staff as necessary.

WHEREFORE, Revolution Wind respectfully requests that the Board grant its Motion for Protective Treatment.

Respectfully submitted,

Revolution Wind, LLC,
By its attorneys,



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PRE-FILED DIRECT TESTIMONY
OF
KENNETH BOWES
AND
KELLEN INGALLS
REVOLUTION WIND, LLC

1 **I. Introduction**

2 **Q. Mr. Bowes, please state your name and business address.**

3 A. My name is Kenneth Bowes. My business address is 56 Prospect Street, Hartford,
4 Connecticut.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Eversource Energy as the Vice President for Offshore Wind Siting and
7 Permitting.

8 **Q. What are your responsibilities in that role?**

9 A. In my role with Eversource, I am responsible for the leadership and direction of siting
10 and permitting activities for Offshore Wind and related transmission infrastructure
11 projects, and compliance for those projects. I also serve as a technical consultant for
12 various large transmission projects and clean energy projects.

13 **Q. Please describe your educational and professional background.**

14 A. I received my B.S. from the University of New Hampshire in Electrical Engineering and
15 my M.S. from Rensselaer Polytechnic Institute in Electrical Engineering. I joined
16 Eversource in 1984 in the System Test Department. Before my current role, I held several
17 engineering and management positions in Eversource's energy delivery organizations,
18 including becoming the Director of Transmission and Distribution Maintenance in 1999,
19 Director of Transmission Construction, Test, and Maintenance in 2002, Director of
20 Transmission Projects in 2004, Vice President of Customer Operations in 2008, Vice
21 President of Energy Delivery in 2010, Vice President of Engineering in 2014, Vice

1 President of Transmission Performance in 2017, and Vice President of ISO Policy, Siting
2 & Compliance in 2018. Additionally, I am the past Chairman of the Edison Electric
3 Institute’s Transmission Committee. I was inducted into the University of Connecticut
4 Academy of Distinguished Engineers in 2016 and the Connecticut Academy of Science
5 and Engineering in 2017.

6 **Q. Have you previously testified before the PUC, the EFSB, or any other energy**
7 **regulatory bodies?**

8 A. Yes. I have testified more than ten times in siting proceedings before the Connecticut
9 Siting Council, New Hampshire Site Evaluation Committee, and the Massachusetts
10 Energy Facilities Siting Board. I have also testified in more than twenty regulatory
11 proceedings on a variety of matters before the Connecticut Public Utilities Regulatory
12 Authority, the New Hampshire Public Utilities Commission, the Connecticut Department
13 of Energy and Environmental Protection, the New York Public Service Commission, and
14 once before the United States Federal Energy Regulatory Commission.

15 **Q. Mr. Ingalls, please state your name and business address.**

16 A. My name is Kellen Ingalls. My business address is 399 Boylston Street, Boston,
17 Massachusetts.

18 **Q. By whom are you employed and in what capacity?**

19 A. I am employed by Ørsted North America Inc. (“Ørsted”). My role is the Project
20 Development Director for Revolution Wind, LLC.

1 **Q. What are your responsibilities in that role?**

2 A. In my role as Project Development Director, I oversee the early stages of the Revolution
3 Wind project leading up to construction.

4 **Q. Please describe your educational and professional background.**

5 A. I have been developing wind energy projects in New England, New York, and the mid-
6 Atlantic region for the last 12 years. I received my B.A. from the State University of New
7 York at Fredonia in English and an M.A. from the University of Vermont in English. I
8 developed wind projects for VERA Renewables and EDP Renewables until I joined
9 Ørsted in October 2019.

10 **Q. Have you previously testified before the PUC, the EFSB, or any other energy
11 regulatory bodies?**

12 A. I have not previously submitted pre-filed testimony. I was, however, a witness at the
13 March 22, 2021 preliminary hearing before the Energy Facility Siting Board (“EFSB”)
14 for the Revolution Wind Project, presenting the Project to the EFSB and responding to
15 questions about the presentation under oath.

16 **Q. What is the purpose of your testimony?**

17 A. This testimony sets forth how the Revolution Wind Project meets the need and cost
18 justification standard for approval by the EFSB to support the requested advisory opinion
19 from the Rhode Island Public Utilities Commission (the “Commission”). Specifically,
20 this testimony will (1) provide an overview of the Revolution Wind Project and discuss
21 the portions of the Revolution Wind Project that are subject to EFSB jurisdiction; (2)
22 discuss how the Project meets Rhode Island’s energy policy goals; (3) address the costs

1 of the Revolution Wind Project, including any potential costs to Rhode Island electric
2 customers; and (4) discuss the alternatives considered. Through this testimony, we will
3 demonstrate that (1) the Revolution Wind Project is necessary to meet the needs of Rhode
4 Island and/or the region for energy of the type to be produced and (2) the Revolution
5 Wind Project is cost-justified and can be expected to produce energy at the lowest
6 reasonable cost to the consumer.

7 **Q. How is your testimony organized?**

8 **A.** This Section I is the Introduction setting forth our background and qualifications. Section
9 II provides an overview of the Revolution Wind Project. Section III discusses the need
10 for the Revolution Wind Project for Rhode Island and the region to meet renewable
11 energy generation and carbon reduction goals under state law and policy directives.
12 Section IV discusses the cost justification for the Revolution Wind Project, including
13 whether there are any additional costs or risks to customers related to the Revolution
14 Wind Project. Section V discusses the alternatives to the EFSB jurisdictional facilities
15 considered for the Revolution Wind project.

16
17 **II. Overview of the Revolution Wind Project**

18 **Q. What is Revolution Wind, LLC?**

19 **A.** Revolution Wind is a Delaware limited liability company formed to develop, own,
20 operate, and maintain the project components identified in the Rhode Island Energy
21 Facility Siting Board (“EFSB”), Docket No. SB-2021-01 Revolution Wind Project
22 Application for a License to Construct. Revolution Wind is a 50/50 joint venture

1 between wholly-owned subsidiaries of Ørsted A/S (“Ørsted”) and Eversource Energy
2 (“Eversource”). DWW Rev I, LLC served notice of its name change to Revolution Wind
3 LLC in October 2020. The name change is administrative only and will have no
4 substantive impact on any Power Purchase Agreement documents previously filed in the
5 Rhode Island, Public Utilities Commission, Docket No. 4929.

6
7 Ørsted is the world’s leader in offshore wind development and construction, with decades
8 of experience executing complex capital projects, including the completion of 28 offshore
9 wind projects with an aggregate capacity of 7,600 megawatts.

10
11 Eversource has established a successful track record in delivering customer value and
12 demonstrated expertise in constructing, financing, owning, maintaining and
13 decommissioning infrastructure assets for the electric industry. Eversource has invested
14 approximately \$8.0 billion over the past three years on new energy infrastructure in New
15 England.

16 **Q. Are you familiar with Revolution Wind’s EFSB application and the Environmental**
17 **Report submitted in support of the Application?**

18 A. Yes.

19 **Q. Can you describe the Revolution Wind Project and its benefits?**

20 A. Revolution Wind proposes to construct the Revolution Wind Project (“Project”), an
21 offshore wind farm that will deliver approximately 704 megawatts (“MW”) of renewable
22 energy to Rhode Island and Connecticut. Revolution Wind developed the Project in

1 direct response to the ambitious clean energy goals of the State of Rhode Island. The
2 Project significantly advances Rhode Island’s renewable energy directives set forth in the
3 State energy plan – Energy 2035 – which calls for Rhode Island to “increase sector fuel
4 diversity, produce net economic benefits, and reduce greenhouse gas emissions by 45
5 percent by the year 2035” in part “through support for state and federal offshore wind
6 projects.” The Project plays an integral role in advancing Rhode Island’s goal of
7 procuring 1,000 MW of renewable energy by 2020 and a 100% Renewable Energy
8 Future by 2030, set forth in former Governor Gina Raimondo’s Executive Order No. 20-
9 01. Moreover, the Project meets the State of Rhode Island’s needs under the 2021 Act on
10 Climate.

11
12 The Project will provide clean, reliable offshore wind energy that will significantly
13 increase the renewable energy available to Rhode Island and Connecticut and reduce
14 carbon emissions across the region. The Project will displace electricity generated by
15 fossil fuel-powered plants, improve energy system reliability and security, and enhance
16 economic competitiveness by attracting new investments and job growth opportunities.
17 The Project will include both offshore and onshore components. This overview of the
18 Project is set forth at page 3 of the Environmental Report submitted with Revolution
19 Wind’s EFSB Application. Revolution Wind has submitted an application, which is
20 currently pending before the EFSB, to for a license to construct and alter major energy
21 facilities within the State of Rhode Island pursuant to R.I.G.L. §§42-98-1, *et seq.*

1 **Q. Please describe the onshore components of the Project.**

2 A. The onshore component will consist of: (1) a Landfall Work Area located at Quonset
3 Business Park in North Kingstown, Rhode Island, which will include two transmission
4 joint bays (“TJBs”); (2) two underground transmission circuits (referred to as the
5 Onshore Transmission Cable) co-located within a single corridor; (3) New Onshore
6 Substation and Interconnection Facility (“ICF”) located adjacent to the existing TNEC
7 Davisville Substation. The ICF is an expansion of TNEC’s existing Davisville
8 Substation; (4) New Interconnection right-of-way (“ROW”) connecting the OnSS to the
9 ICF (underground); and (5) an Overhead ROW (“TNEC ROW”) connecting the ICF to
10 TNEC’s Davisville Substation. The overhead transmission line is a reconfiguration of
11 existing overhead lines. This overview of the onshore components of the Project is set
12 forth at page 4 of the Environmental Report submitted with Revolution Wind’s EFSB
13 Application.

14 **Q. Please describe the offshore components of the Project.**

15 A. The offshore components will consist of (1) up to 100 Wind Turbine Generators
16 (“WTGs”) connected by a network of Inter-Array cables in federal waters; (2) up to two
17 Offshore Substations (“OSSs”) connected by an OSS-Link Cable in federal waters; and
18 (3) up to two submarine export cables, referred to as the Revolution Wind Export Cable
19 (“RWEC”), generally co-located within a single corridor within federal and Rhode Island
20 State Waters. This overview of the offshore components of the Project is set forth at page
21 4 of the Environmental Report submitted with Revolution Wind’s EFSB Application.

1 **Q. Please describe the components of the Project that are subject to EFSB jurisdiction?**

2 A. The Project components subject to EFSB jurisdiction include the following: (1) the
3 RWEC-RI, which includes two submarine cables, each measuring up to 23 miles in
4 Rhode Island State Waters; (2) the Landfall Work Area, which totals up to 3.1 acres (1.3
5 hectares) and includes the onshore portion of the RWEC-RI, two underground TJBs for
6 jointing the RWEC-RI to the Onshore Transmission Cable, a portion of the Onshore
7 Transmission Cable, and temporary construction access; (3) an Onshore Transmission
8 Cable that is approximately 1 mile (1.6 kilometers) long; (4) the OnSS with an
9 operational footprint of approximately 4 acres (1.6 hectares); (5) an Interconnection
10 ROW between the OnSS and ICF consisting of two underground transmission lines with
11 a length of up to approximately 519 feet (158.2 m) that will connect the OnSS to the
12 proposed ICF; (6) an ICF that consists of a 115kV ring-bus with an operational footprint
13 of 1.6 acres (0.6 hectares); and (7) the reconfiguration of overhead segments of the
14 existing TNEC Davisville Transmission Tap lines (approximately 122 feet) and new
15 overhead lines approximately 744 feet long between the ICF and the TNEC Davisville
16 Substation on property owned by TNEC proximate to the TNEC Davisville Substation in
17 North Kingstown, Rhode Island. Further details about the EFSB jurisdictional
18 components of the Project are set forth at page 9 of the Environmental Report.

19
20 Revolution Wind has received its I.3.9 approval from ISO New England, Inc. for all the
21 EFSB jurisdictional facilities confirming no significant adverse effect on the reliability or
22 operating characteristics of the transmission facilities.

1 **III. Project Need**

2 **Q. Please explain how the Revolution Wind Project meets a need for energy of the type**
3 **to be generated in Rhode Island and the region.**

4 Revolution Wind developed the Project in direct response to the expressed needs of the
5 States of Rhode Island and Connecticut to increase the renewable energy load serving
6 each state. The State of Rhode Island and the entire New England region have established
7 a commitment to securing an energy future driven by renewable resources. Specific to the
8 Project, Rhode Island and Connecticut have statutory requirements for utilities in their
9 states to procure significant volumes of clean energy to achieve that goal, and the
10 regulatory authorities in both states have approved PPAs for energy to be generated by
11 the Project. The Project, therefore, meets the “need” requirement for two reasons: (1) it
12 will provide substantial amounts of energy to meet the expected demand of customers in
13 Rhode Island and Connecticut, and (2) it will provide clean energy from renewable
14 resources that is necessary for Rhode Island and Connecticut to meet their renewable
15 energy goals.

16 **Q. Please explain how the Revolution Wind project is consistent with the goals of**
17 **Energy 2035.**

18 The Project significantly advances Rhode Island’s renewable energy directives set forth
19 in the State energy plan – Energy 2035 – which calls for Rhode Island to “increase sector
20 fuel diversity, produce net economic benefits, and reduce greenhouse gas emissions by 45
21 percent by the year 2035” in part “through support for state and federal offshore wind
22 projects.”

1 **Q. Please explain how the Revolution Wind project is necessary to meet the energy**
2 **policy goals for Rhode Island.**

3 In addition to contributing to the goals of Energy 2035, as described above, the Project
4 also contributes 400 MW of renewable energy toward Rhode Island’s ambitious goal of
5 procuring 1,000 MW of renewable energy by 2020 and converting Rhode Island to 100%
6 renewable energy by 2030, set forth in Governor Gina Raimondo’s executive orders.
7 Moreover, the Project contributes to the State of Rhode Island’s needs under the 2021
8 Rhode Island Act on Climate to reduce greenhouse gas emissions to net-zero by the year
9 2050, and 45 percent (45%) below 1990 levels by 2030.

10 **Q. Please explain why the jurisdictional components of the Revolution Wind Project**
11 **are necessary to connect it to the onshore electric transmission system.**

12 Transmission and interconnection facilities are necessary to transfer electricity generated
13 by the Project to the broader electrical grid. This specifically requires conveying
14 electricity from the offshore wind farm to existing onshore electrical transmission
15 facilities associated with the Project.

16

17 **IV. Cost Justification**

18 **Q. What is the estimated cost to develop the Revolution Wind project?**

19 A. As part of the Request for Proposals process, and selection of Revolution Wind to receive
20 its PPAs, the Project team developed estimates of the costs associated with the proposed
21 Project. Revolution Wind continues to track Project costs as design progresses and has

1 provided the estimated cost of the Project components located within Rhode Island
2 subject to EFSB jurisdiction in Exhibit A, attached hereto.

3 **Q. Who will incur these costs?**

4 A. Revolution Wind is responsible for costs to develop the Project. Revolution Wind will be
5 selling the power from the Project to The Narragansett Electric Company d/b/a National
6 Grid (“TNEC”) under a Power Purchase Agreement Between The Narragansett Electric
7 Company d/b/a National Grid (“TNEC”) and DWW Rev I, LLC dated December 6, 2018
8 (“PPA”), which was approved by the Commission on June 7, 2019 in Order No. 23609 in
9 Docket No. 4929.

10 **Q. What are the costs to Rhode Island customers for the power to be generated by the
11 Revolution Wind project?**

12 A. Revolution Wind is selling the power generated by the Project to TNEC under the PPA,
13 based on the terms of the PPA. TNEC is then selling the power into the wholesale energy
14 market. TNEC is authorized under Commission Order No. 23609 to obtain cost recovery
15 through a mechanism that projects costs of the products delivered under the PPA. That
16 cost recovery mechanism, however, has not yet been established. TNEC will submit a
17 proposed cost recovery mechanism for Commission approval approximately one year in
18 advance of commercial operation of the Project.

19 **Q. Are there any additional costs that Rhode Island customers will incur beyond the
20 cost of the power under the PPA?**

21 A. Revolution Wind is unaware of any additional potential cost impact to consumers related
22 to the Project that would be incurred outside of the cost to consumers already embedded

1 in the PPA. The risks associated with the costs of developing the project are borne
2 exclusively by Revolution Wind.

3
4 **V. Alternatives Considered**

5 **Q. Can you describe the alternatives considered for the Project?**

6 A. Revolution Wind undertook a multi-phased approach to evaluate siting alternatives for
7 the Project that included the potential grid interconnection points (“POIs”), RWEC-RI,
8 OnSS, and Onshore Transmission Cable. In order to accept the maximum electricity
9 produced by the Project, Revolution Wind evaluated substations with operating capacities
10 of 115 kV or higher as potential grid POIs.

11
12 As summarized below, Revolution Wind has evaluated multiple alternatives for both
13 offshore and onshore components of the Project. Based on this analysis, Revolution Wind
14 has determined that routing the RWEC-RI through the West Passage of Narragansett Bay
15 to Quonset Point, installing the Onshore Transmission Cables underground using the
16 Quonset Business Park Route, building a new OnSS on the Quonset Development
17 Corporation (“QDC”) property adjacent to and connecting to TNEC’s existing Davisville
18 Substation, and building a new ICF on TNEC’s Davisville Substation parcel are superior
19 to the other alternatives considered. The details of the alternatives analysis are set forth
20 at pages 15-16 and 77-109 of the Environmental Report.

1 **Q. Please summarize the alternatives analysis for the POIs.**

2 Revolution Wind evaluated four potential POIs: (1) Davisville POI, (2) Kent County POI,
3 (3) Brayton Point POI, and (4) Pottersville POI. Revolution Wind based its evaluation of
4 these POIs on proximity to coastline, available lands to support the OnSS, and existing
5 infrastructure with capacity to accept the electricity produced by the Project.

6 **Q. Please explain which POI alternative was chosen and the reasons it was chosen.**

7 A. Revolution Wind selected the Davisville POI because it had the shortest onshore route,
8 available land, favorable land use designations, and limited seabed and terrestrial
9 disturbance.

10 **Q. Please summarize the alternatives analysis for the RWEC-RI route.**

11 Revolution Wind evaluated numerous routing alternative for the RWEC-RI as follows:

- 12 • The lower West Passage between the Towns of Jamestown, Narragansett and
13 North Kingstown;
- 14 • The lower East Passage between the City of Newport and Town of Jamestown;
- 15 • The upper West Passage between Prudence Island (Town of Portsmouth), Town
16 of North Kingstown and City of Warwick;
- 17 • Greenwich Bay which is bounded by the City of Warwick and Kent County
18 overland route;
- 19 • The upper East Passage between Aquidneck Island and Prudence Island and
20 Mount Hope Bay bounded by the Towns of Portsmouth, Tiverton and Bristol,

1 Rhode Island, and the Towns of Swansea and Somerset and City of Fall River,
2 Massachusetts; and
3 • The Sakonnet River between the Towns of Little Compton and Tiverton, and
4 Aquidneck Island, the Mount Hope Bay and the Taunton River.

5 Revolution Wind analyzed these alternatives based on the interconnection point to the
6 onshore transmission grid; conflicts with existing onshore and offshore environmental
7 and anthropogenic constraints and uses; distance between the lease area and potential
8 POIs.

9 **Q. Please explain which RWEC-RI route alternative was chosen and the reasons it was**
10 **chosen.**

11 A. Revolution Wind selected the Lower West Passage route for the RWEC-RI. The export
12 cable is subject to the RI Resources Management counsel category B review and
13 approval. This alternative allows for interconnection at the Davisville POI, and
14 Revolution Wind is working with the Rhode Island Coastal Resources Management
15 Council to locate the route within its planned cable corridor. This alternative also
16 accommodates the full generation capacity of the Project and results in minimal resource
17 impacts, existing bathymetry, favorable geology, avoidance of use conflicts and
18 environmental constraints, available land for interconnection equipment, favorable
19 zoning, and beneficial reuse of contaminated properties.

20 **Q. Please summarize the alternatives analysis for the OnSS.**

21 Revolution Wind evaluated three potential properties for the OnSS: (1) the QDC
22 property adjacent to the TNEC Davisville Substation, (2) the Fujifilm Substation

1 Property, and the (3) QDC Mainsail Substation Property. All the properties were
2 evaluated based on size, topography, accessibility, soil conditions, contamination,
3 wetlands, floodplains, rare species, vegetation clearing, land use and zoning, sensitive
4 receptors, noise impacts, visual impacts, real estate, and existing utility conflicts.

5 **Q. Please explain which OnSS location was chosen and the reasons it was chosen.**

6 A. Revolution Wind selected the QDC property based on the proximity to the POI, which
7 balances environmental concerns and cost, and has the support of QDC and the Town of
8 North Kingstown.

9 **Q. Please summarize the alternatives analysis for the Onshore Transmission Cable**
10 **Route.**

11 Revolution Wind analyzed four potential routes from four possible landfall locations: (1)
12 the Blue Beach Alternative, (2) the Whitecap Drive Alternative, (3) the Hayward West
13 Alternative, and (4) the Quonset Business Park Route Alternative. Additionally,
14 Revolution Wind analyzed an alternative for each of these routes where a portion of the
15 route traverses a privately owned parking lot. Revolution Wind based its analysis on the
16 preferred RWEC-RI route, landfall location, and the OnSS location, as well as the length
17 of the underground cable, installation infrastructure, reliability concerns, wetlands,
18 contamination, rare species, vegetation clearing, route analysis, utilities, estimated
19 construction schedules, and estimated construction costs.

1 **Q. Please explain which Onshore Transmission Cable Route was chosen.**

2 A. Based on the selection criteria, Revolution Wind selected the Quonset Business Park
3 Route Alternative, and has chosen the route that traverses the private parking lot.

4 **Q. Please explain whether the alternatives selected through the alternative analyses had
5 a material impact on Project costs or costs to consumers.**

6 A. Revolution Wind considered cost impacts as part of its alternatives analyses, though it
7 was not the deciding factor in making selections. Revolution Wind's is selling the energy
8 and associated attributes generated by the Project to TNEC at a bundled price established
9 in the Commission-approved PPA. The cost risks associated with the alternatives
10 analyses and selections rest entirely with Revolution Wind. There are no costs to
11 consumers as a result of the alternatives analysis.

12

13 **VI. Conclusion**

14 **Q. Based on your knowledge and involvement, is there a need in Rhode Island and the
15 region for the energy to be produced by the Project?**

16 A. Yes.

1 **Q. Based on your knowledge and involvement, is the Project expected to transmit**
2 **energy from the offshore generating source to the mainland at the lowest reasonable**
3 **cost to the consumer consistent with the objective of ensuring that the construction**
4 **and operation of the facilities will be accomplished in compliance with all of the**
5 **requirements of the laws, rules, and regulations?**

6 A. Yes

7 **Q. Does this conclude your testimony?**

8 A. Yes.

Exhibit A:

Project Costs (CONFIDENTIAL)

Revolution Wind, LLC
PUC Docket No. 5151
In Re: Revolution Wind Advisory Opinion to the
RI Energy Facility Siting Board

CONFIDENTIAL INFORMATION

Exhibit A to the Pre-Filed Direct Testimony of Kenneth Bowes and Kellen Ingalls. The exhibit contains confidential financial information. Revolution Wind has requested protective treatment of this confidential document in its entirety.